

FIRST QUARTER 2006 GROUNDWATER MONITORING REPORT

Sampled on January 23, 2006 Job # SP-110 LOP # 12509

April 28, 2006

Big Oil & Tire Co. – Blue Lake BP (Blue Lake 76) 291 Blue Lake Boulevard Blue Lake, California 95525

This *Quarterly Groundwater Monitoring Report* was prepared for Big Oil & Tire Co. (BO&T) by SounPacific Environmental Services (SounPacific) staff using previous studies that were provided by Clearwater Group, Inc. (CGI) and file review conducted at Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH). Blue Lake 76 (the Site) is located at 291 Blue Lake Boulevard, Blue Lake, California (Figure 1).

SITE DESCRIPTION

Site improvements include a single story building with an attached warehouse and three dispenser islands. The remaining area of the Site is paved with concrete and asphalt. The primary building is used as a mini-mart and the warehouse is used for storage. An apartment building is located adjacent and to the north of the mini-mart. The main structures are on the northern property line with the entrance to the mini-mart facing south towards Blue Lake Boulevard (Figure 2).

There is currently one 12,000-gallon regular unleaded gasoline underground storage tank (UST)

and one 12,000-gallon split-compartment UST containing premium unleaded gasoline and diesel fuel, which were installed on March 24, 2004 (Figure 2). Three 5,000-gallon USTs that contained regular unleaded gasoline, mid-grade unleaded gasoline, and diesel fuel, and a 2,000-gallon UST that contained premium unleaded gasoline were removed from the Site on March 19, 2004. Surface water runoff is controlled by drainage ditches and municipal storm sewers. All electrical and telephone lines are above ground (Figure 2).

SITE TOPOGRAPHY AND LAND USE

The elevation of the Site is approximately 125 feet above mean sea level (amsl). The Site and surrounding properties slope gently in a south and westerly direction toward the Mad River, which is located approximately one mile south of the Site. Surface water appears to drain in a southerly direction. Surrounding topography rises steeply to the north (Figure 1). The surrounding land use in the immediate vicinity is a mixture of commercial and residential. The Blue Lake Burger Barn resides adjacent and to the east of the Site. Blue Lake Boulevard borders the south side of the property line. Elgar's Apartments is adjacent to the west of the Site. Residential properties are located to the south of the property.

SITE HISTORY

Previous studies overseen by CGI and SounPacific indicated the following historical information:

1994 Product Line Repair (Beacom)

On September 28, 1994, Paul Dalka of HCDEH observed Beacom Construction of Fortuna, California (Beacom) conduct repairs on the product line leading to the regular unleaded gasoline dispenser. This work was initiated in response to a loss of prime to the pump; however, a subsequent leak test indicated that a leak was present in the line. At that time, three (3) soil samples (BP Blue #1 to #3) were collected at depths between one and two feet bgs from an excavated trench adjacent to the product line (Figure 3). Elevated levels of TPHg (> 450 ppm) were detected at all three sample locations (Table 1). No groundwater samples were collected.

1997 Subsurface Investigation (CGI)

On March 27, 1997, CGI performed a subsurface investigation at the Site to provide an initial evaluation of the level of hydrocarbons in the soil and groundwater adjacent to the USTs and associated piping. Four (4) direct push soil borings (B-1, B-2, MW-1, and MW-3) were initially installed onsite and then groundwater monitoring wells were installed in the locations of MW-1, and MW-3 (Figure 3). Monitoring well MW-2 was not installed during this event. Soil samples were collected from each boring and the results of the analyses indicated that the soil near the USTs and the southern dispenser island were impacted with TPHg contamination (Table 1). In a letter dated January 8, 1998, HCDEH requested a work plan from BO&T to determine the extent of the hydrocarbon plume.

2000 Subsurface Investigation (SounPacific)

On September 7, 2000, SounPacific performed a subsurface investigation at the Site in accordance with the approved CGI *Work Plan Addendum*, submitted October 20, 1998. The purpose of the investigation was to determine the vertical and horizontal extent of hydrocarbon contamination in the soil and groundwater near the USTs. Six (6) soil borings (B-3 through B-8) were drilled and soil samples were taken at depths of five-foot intervals (Figure 3) (Table 1). Groundwater samples were also collected from each borehole (Table 2).

Laboratory analysis reported elevated levels of TPHg (> 1,000 ppm) and BTXE (> 100 ppm) in the soil of boring B-8, southwest of the southern dispenser island. Less significant concentrations were reported in borings B-3 to B-5, located south of the USTs (Table 1). Soil contamination was primarily reported at a depth of 10 feet bgs. Elevated levels of gasoline (> 500 ppb) and diesel range (> 200 ppb) hydrocarbon contamination were detected in groundwater samples from borings B-3 and B-8 (Table 2). SounPacific recommended the installation of additional borings to further define the southern and eastern plume boundaries, and the installation of two additional monitoring wells in order to accurately determine the direction of groundwater flow. In a letter dated January 30, 2001, HCDEH concurred with SounPacific's recommendations and requested a work plan to determine the extent of contamination at the Site.

2002 Subsurface Investigation (SounPacific)

On May 14, 2002, SounPacific staff performed an additional subsurface investigation at Blue Lake 76, according to the guidelines as approved in the SounPacific *Subsurface Investigation Workplan*, dated March 10, 2001. Five (5) soil borings were installed (B-9 through B-13) (Figure 3) and soil and groundwater samples were collected. Soil analytical results indicated that the extent of soil contamination was limited within the Site (Table 1). Groundwater analytical results indicated that groundwater contamination extended offsite to the south across Blue Lake Boulevard. Boreholes B-10 through B-12 and domestic well DW-1, reported elevated TPHg (> 2,500 ppb) and TPHd (> 800 ppb) concentrations (Table 2). Two (2) additional monitoring wells (MW-3 and MW-4) were installed and a groundwater monitoring program was initiated. At this time, SounPacific recommended further delineating the plume to the south. In a letter dated December 31, 2002, HCDEH concurred with this recommendation and requested a work planl to further delineate the soil and groundwater contamination.

2004 UST Removal/Installation (Beacom)

On March 19, 2004, Beacom removed four USTs at the Blue Lake 76 site. SounPacific staff was onsite for portions of the excavation activity. The USTs were removed from two separate excavations, one (Main Pit) in the eastern portion of the Site that contained three USTs used to store unleaded gasoline, mid-grade gasoline, and diesel fuel, and an excavation in the central area of the Site (Super Pit) that contained the UST used to store premium gasoline. During the excavation activities monitoring well MW-1 was destroyed. Also, as described in the HCDEH approved *Excavation Work Plan*, dated December 11, 2003, additional excavation occurred to allow for the installation of a new UST system, and to remove identified soil contamination.

Following the removal of the USTs, seven (7) soil samples (1-North, 1-South, 2-South, 2-North, 3-South, 4-South, and 1-Sidewall) were collected from the sidewalls adjacent to the ends of the USTs. Laboratory analysis did not report any contamination above the method detection limits (Table 1). Two (2) groundwater samples (Super Pit and Main Pit) were collected from the excavation pits. Laboratory analysis reported elevated levels (> 1,000 ppb) of petroleum

hydrocarbons in the Main Pit groundwater sample. Total lead concentrations were extremely elevated (> 3,000 ppb) in the same Main Pit sample (Table 2).

After the UST system removal, during the period between March 20 through 24, 2004, Beacom removed additional soil from the "Main Pit" to allow for the installation of the new UST system and removed contaminated soil that had been visually observed in the base of the excavation. No soil samples were collected at the vertical extent of the excavation as the excavation had to be backfilled immediately to preserve the integrity of onsite structures, however, significant contamination, including possible free phase product, was observed by Beacom personnel at a depth of approximately 12 feet bgs. Laboratory analysis of ten soil samples from the stockpiled excavated material reported high levels of both TPHg and TPHd, ranging from 10^4 to 10^5 ppm. At the lateral limits of the excavation, SounPacific collected seven (7) soil samples (BL 76 EX-1 through BL 76 EX-7). Analytical results of the two (2) soil samples (BL 76 EX-3 and BL 76 EX-4), both collected at ten feet bgs, from the northern extent of the excavation, indicated that further excavation was necessary to the north; however, excavation was impeded due to the presence of onsite structures. In addition, further excavation was necessary in the southwest portion of the excavation, in the vicinity of the two soil samples (BL EX-5 and BL 76 EX-6), collected at eight feet and nine feet bgs, respectively. However excavation in this area was not possible because further excavation would have made the installation of the new USTs impossible due to the space requirements of the equipment used in the UST system installation. In addition, further excavation was not possible due to lack of additional onsite storage space for excavated soils. Approximately 1,000 tons of impacted soil was excavated and disposed of at an offsite licensed facility.

2004 Subsurface Investigation (SounPacific)

During the period of May 24 through May 28, 2004, SounPacific staff performed a subsurface investigation at Blue Lake 76 to further define the hydrocarbon plume to the south of the Site. The investigation was performed in accordance with the approved *Subsurface Investigation Workplan*, dated July 14, 2003, and the *Proposed Investigation (Figure 11) Second Revision*, dated January 22, 2004. Eight (8) soil borings (B-14 through B-21) (Figure 3) were installed and

soil and groundwater samples were collected (Tables 1 and 2).

Laboratory analysis reported elevated levels of TPHg (> 1,000 ppm) contamination in soils collected from borings B-15 and B-21, which were located southwest and west of the previous southern dispenser island (Table 1). Elevated levels (> 1,700 ppb) of contamination were reported in all groundwater samples, except from borings B-18 and B-19, which were located on a private residence to the south of the Site (Table 2). The May 2004 site investigation confirmed the presence of the groundwater contamination, and determined that it had migrated at least 200 feet to the southwest, and on to adjacent properties on the south side of Blue Lake However, the full extent of the groundwater contamination was not determined; Boulevard. therefore SounPacific recommended additional investigation to determine the full downgradient To provide a complete evaluation of the groundwater contamination distribution, SounPacific also recommended additional monitoring wells should be installed and a groundwater monitoring program implemented. In a letter dated February 2, 2005, HCDEH concurred with the recommendations and requested a work plan to delineate the groundwater plume and move the Site towards remediation.

RESULTS OF QUARTERLY SAMPLING

A quarterly groundwater monitoring program was implemented by SounPacific on July 15, 2002. SounPacific is currently conducting quarterly groundwater sampling events to monitor hydrocarbon concentrations onsite, and collecting quarterly water level data to document any changes in groundwater levels and track any noticeable changes in groundwater gradient and direction of flow. Monitoring wells were gauged and sampled on January 23, 2006.

FIELD DATA

Wells gauged: MW-2, MW-3, and MW-4

Groundwater: Depth ranged from 7.65 to 10.46 feet below top of casing (Table 3)

Ranged from 113.61 to 117.26 feet above mean sea level (Table 3)

Floating Product: Sheen detected in MW-3

Flow direction: SSW (Figure 4)

Groundwater gradient: 0.09 feet per foot (ft/ft) (Figure 4)

On January 23, 2006, the depth to groundwater in the Site's three monitoring wells ranged from 7.65 feet below top of casing (btoc) in well MW-2 to 10.46 feet btoc in MW-4. When corrected to mean sea level, water level elevations ranged from 113.61 feet above mean sea level (amsl) in MW-4 to 117.26 feet amsl in MW-2. Groundwater levels for the January 23, 2006 monitoring event, along with historical level and elevations are included in Table 3. Groundwater flow was towards the south-southwest at a gradient of 0.09 feet per foot. The groundwater flow and gradient are graphically depicted in Figure 4. Prior to sampling, all wells were purged; the groundwater field purging parameters for each well are presented below.

MONITORING WELL MW-2 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pН	Temp./ F	Cond./ ms(cm) ⁻¹
12:51 pm	0	6.24	59.95	0.215
12:56	1.7	6.24	60.00	0.214
1:04	3.4	6.24	60.24	0.210
1:10	5.1	6.21	59.93	0.201

MONITORING WELL MW-3 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	pН	Temp./ F	Cond./ ms(cm) ⁻¹
1:53 pm	0	6.23	61.02	0.220
1:58	1.6	6.23	60.24	0.227
2:03	3.2	6.21	61.16	0.235
2:07	4.8	6.15	61.79	0.217

MONITORING WELL MW-4 GROUNDWATER FIELD PARAMETERS

Time	Total Vol. Removed/ gal	рН	Temp./ F	Cond./ ms(cm) ⁻¹
1:22 pm	0	6.48	61.93	0.568
1:29	1.4	6.36	62.54	0.517
1:34	2.8	6.38	62.90	0.533
1:38	4.2	6.47	63.29	0.573

ANALYTICAL RESULTS

Sampling locations: MW-2, MW-3, and MW-4

Analyses performed: TPHg, BTXE, MTBE, DIPE, TAME, ETBE, TBA, TPHd, TPHmo

Laboratories Used: Basic Labs, Redding, California (ELAP Cert #1677)

On January 23, 2006, the three monitoring wells MW-2, MW-3, and MW-4, were sampled for laboratory analysis following suitable well purging. The analytical results for the current monitoring event are presented below and graphically depicted in Figure 5. The laboratory report is included as Appendix A. The historical analytical results for all monitoring wells, since the implementation of groundwater monitoring are included as Table 4.

	MW-2	<u>MW-3</u>	MW-4
	(ppb)	(ppb)	(ppb)
TPHg:	ND < 50	ND < 50	ND < 50
Benzene:	ND < 0.5	ND < 0.5	ND < 0.5
Toluene:	ND < 0.5	ND < 0.5	ND < 0.5
Xylenes:	ND < 1.0	ND < 1.0	ND < 1.0
Ethylbenzene:	ND < 0.5	ND < 0.5	ND < 0.5
MTBE:	ND < 1.0	ND < 1.0	15.9
DIPE:	ND < 0.5	ND < 0.5	ND < 0.5
TAME:	ND < 0.5	ND < 0.5	0.5
ETBE:	ND < 0.5	ND < 0.5	ND < 0.5
TBA:	ND < 50	ND < 50	ND < 50
TPHd:	55	ND < 50	ND < 50
TPHmo:	68	ND < 50	ND < 50

(ND= non-detectable)

COMMENTS AND RECOMMENDATIONS

On January 23, 2006, the First Quarter 2006 groundwater monitoring event for the Site's three existing monitoring wells was conducted at the Blue Lake 76 service station at 291 Blue Lake

Boulevard in Blue Lake, California. A summary of the results are presented below.

- The depth to groundwater in the three onsite wells ranged between 7.65 feet btoc (MW-2) to 10.46 feet btoc (MW-4). When corrected to sea level, the water level elevation ranged from 113.61 feet above mean sea level (amsl) in MW-4 to 117.26 feet amsl in MW-2. Groundwater flow was towards the south southeast at a gradient of 0.09 feet per foot (Figure 4).
- Groundwater samples from the three onsite wells were collected and analyzed for TPHg, BTXE, five-fuel oxygenates, TPHd, and TPHmo. No TPHg or BTXE were reported in any of the wells. Fuel oxygenates MTBE and TAME were reported in well MW-4 at a concentrations of 15.9 ppb and 0.5 ppb, respectively, but were absent in wells MW-2 and MW-3. TPHd and TPHmo were reported at a concentration of 55 ppb and 68 ppb, respectively, in well MW-2.

Based upon these results the following observations and conclusions have been made.

• TPHg was detected once in well MW-2 during the first quarter 2004 monitoring event. TPHg has never been reported in well MW-3. TPHg has been non-detect in well MW-4 since the first quarter 2005. Although not sampled during the recent monitoring event, TPHg has been reported in well DW-1 during all ten of its sampling events, at concentrations greater than 10³ ppb. The historical fluctuations of TPHg concentrations in the monitoring wells are shown in Figures 6, 7, 8 and 9.

- BTXE has never been detected in wells MW-2 and MW-3. With the exception of low levels of xylenes and ethylbenzene during the October 2004 event, BTXE concentrations have been non-detect in well MW-4 since the second quarter of 2003. In the disused domestic well, concentrations of BTXE have shown a general reduction over time. See Figures 6 through 8.
- MTBE was present in all wells at the Site until the first quarter 2005, when it was confined to wells MW-4 and DW-1, only. MTBE concentrations have decreased in well MW-4 since the previous quarter of monitoring, see Figures 6 through 8.
- TAME has been reported, at low levels, in three of the sixteen sampling events for well MW-2, but has not been reported since October 2002. In well MW-3, TAME has never been reported. In well MW-4, TAME has been reported during nine of the last sixteen sampling events at low concentrations.
- TBA has not been reported since the first quarter of 2003 in monitoring well MW-4 (12 ppb).
- TPHd was detected during five out of sixteen sampling events in well MW-2. TPHd was detected once in well MW-3 during the well installation sampling event. In well MW-4 the concentrations of TPHd have been fairly consistent and have fluctuated over time. The domestic well DW-1 has reported consistent elevated concentrations (average of 2,000 ppb) of TPHd during nine out of ten sampling events. The historical fluctuations of TPHd concentrations over time for all wells are shown in Figures 6 through 8.
- TPHmo was detected in well MW-2 during four out of sixteen sampling events, including this quarter.

Based on the results of the January 2006 monitoring event, data interpretation, and historical results, the following future activities are proposed.

- A Subsurface Investigation Work Plan, was submitted by SounPacific to HCDEH on November 30, 2005, followed by a Work Plan Addendum on March 7, 2006. The scope of the investigation that included groundwater sampling from borings, along with the installation of new and replacement groundwater monitoring wells was approved by HCDEH in a letter dated March 15, 2006. SounPacific are currently obtaining "Site Access Agreements", as a portion of the work will be conducted on private property. Once the access agreements have been finalized, the field work will be scheduled.
- Once field work has been conducted and laboratory data received and interpreted, SounPacific will prepare and submittal a Report of Findings, which if applicable, will be combined with a corrective action plan in an attempt to move forward on remediation of the identified hydrocarbon groundwater plume, which will include the domestic well across the street to the south of the Site.
- Groundwater monitoring should be suspended until the new and replacement monitoring wells are installed. Once the new wells are installed, groundwater monitoring, should be restarted. In the new wells, groundwater sampling will be continued on a quarterly basis; however, as no significant contamination has ever been reported in the existing wells, the sampling and analysis in the existing well should be reduced to twice a year. Groundwater level measurements will continue to be collected from all monitoring wells on a quarterly basis, to determine groundwater flow direction and gradient. Collected groundwater samples from all the wells will be analyzed for TPHg, BTXE, five-fuel oxygenates/additives, TPHd, and TPHmo. In addition, grab groundwater sampling of well DW-1, on the private property to the south of Blue Lake Boulevard, will be reincluded in the quarterly monitoring events.

CERTIFICATION

This report was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions and recommendations are based solely upon field observations and analyses performed by a state-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific promises to perform all its work in a manner that is currently used by members in similar professions working in the same geographic area. SounPacific will do whatever is reasonable to ensure that data collection is accurate. Please note however, that rain, buried utilities, and other factors can influence groundwater depths, directions and other factors beyond what SounPacific could reasonably determine.

No. 87994

Expires: 06

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ATTACHMENTS

TABLES & CHART

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Table 2: Groundwater Analytical Results from Boreholes

Table 3: Water Levels

Table 4: Groundwater Analytical Results from Monitoring Wells

Chart 1: Hydrograph

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Figure 2: Site Plan

Figure 3: Sample Location Map

Figure 4: Groundwater Gradient Map January 2006

Figure 5: Groundwater Analytical Results

Figure 6: MW-2 Hydrocarbon Concentrations vs. Time

Figure 7: MW-3 Hydrocarbon Concentrations vs. Time

Figure 8: MW-4 Hydrocarbon Concentrations vs. Time

Figure 9: DW-1 Hydrocarbon Concentrations vs. Time

APPENDICES

Appendix A: Laboratory Report and Chain-of-Custody Form

Appendix B: Standard Operating Procedures

Appendix C: Field Notes

Tables & Chart

Table 1 Soil Analytical Results

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Lead (ppm)
B.P. Blue #1		9/28/1994	490	0.25	2.0	9.4	1.4								65
B.P. Blue #2		9/28/1994	490	0.69	5.2	16.5	2.3								
B.P. Blue #3		9/28/1994	3.7	0.1	0.43	0.26	0.056								
B-1 @ 5.5'	B-1	3/27/1997	2.1	ND*	0.0054	0.031	0.014	0.016					ND*	ND*	9
B-1 @9.0'	B-1	3/27/1997	10	0.016	ND*	0.49	0.14	0.68					ND*	ND*	6.6
B-2 @ 5.0'	B-2	3/27/1997	ND*	ND*	ND*	ND*	ND*	ND*					16	360	7.6
B-2 @ 10.5'	B-2	3/27/1997	11	ND*	ND*	ND*	ND*	ND*					71	23	6.9
MW-1 @ 3.0'	MW-1	3/27/1997	15	0.044	0.029	0.93	0.031	0.23					ND*	11	8.3
MW-1 @ 7'	MW-1	3/27/1997	6	0.02	0.009	0.11	0.08	0.22					ND*	ND*	7.8
MW-2 @ 5.5'	MW-2	3/27/1997	ND*	ND*	ND*	0.013	ND*	ND*					ND*	ND*	8.4
MW-2 @ 10.5'	MW-2	3/27/1997	ND*	ND*	ND*	ND*	ND*	ND*					ND*	ND*	6
BL76B-3 @ 5'	B-3	9/7/2000	6.2	0.012	ND < 0.03	0.107	0.073	0.091					ND < 1.0	ND < 10	
BL76B-3 @ 10'	B-3	9/7/2000	6.8	ND < 0.005	ND < 0.04	ND < 0.04	0.019	ND < 0.05					ND < 1.0	ND < 10	
BL76B-3 @ 15'	B-3	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-3 @ 20'	B-3	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-4 @ 5'	B-4	9/7/2000	3.1	0.013	ND < 0.02	0.023	0.012	ND < 0.05					ND < 1.0	ND < 10	
BL76B-4 @ 10'	B-4	9/7/2000	6.0	ND < 0.005	ND < 0.03	0.021	0.0087	ND < 0.05					2.8	ND < 10	
BL76B-4 @ 15'	B-4	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-4 @ 20'	B-4	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-5 @ 5'	B-5	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-5 @ 10'	B-5	9/7/2000	4.8	0.0094	0.24	0.18	0.02	ND < 0.05					34	ND < 10	
BL76B-5 @ 15'	B-5	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-5 @ 20'	B-5	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-5 @ 25'	B-5	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	11	
BL76B-6 @ 5'	B-6	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-6 @ 10'	B-6	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-6 @ 15'	B-6	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-7 @ 5'	B-7	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-7 @ 10'	B-7	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	
BL76B-8 @ 5'	B-8	9/7/2000	1.9	ND < 0.005	ND < 0.005	0.057	0.0082	ND < 0.05					ND < 1.0	ND < 10	
BL76B-8 @ 10'	B-8	9/7/2000	1,400	ND < 0.06	ND < 4.0	121	21	ND < 0.25					33	ND < 10	
BL76B-8 @ 15'	B-8	9/7/2000	ND < 1.0	ND < 0.005	ND < 0.005	0.0092	ND < 0.005	ND < 0.05					ND < 1.0	ND < 10	

Table 1 (cont.) Soil Analytical Results

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)	Lead (ppm)
SB-9 @ 4'	B-9	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-9 @ 8'	B-9	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-9 @ 12'	B-9	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-9 @ 16'	B-9	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-10 @ 4'	B-10	5/14/2002	0.488	0.019	ND < 0.005	ND < 0.015	ND < 0.005	0.014	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-10 @ 8'	B-10	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-10 @ 12'	B-10	5/14/2002	9.68	ND < 0.05	ND < 0.05	ND < 0.15	0.095	ND < 0.05	ND < 0.05	ND < 0.05	ND < 0.05	ND < 50			
SB-10 @ 16'	B-10	5/14/2002	1.1	ND < 0.005	0.005	0.02	0.063	0.270	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-11 @ 4'	B-11	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-11 @ 8'	B-11	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-11 @ 12'	B-11	5/14/2002	30.5	0.092	ND < 0.005	1.28	1.13	0.231	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-11 @ 16'	B-11	5/14/2002	29.2	0.197	0.012	0.554	0.931	0.0589	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-12 @ 8'	B-12	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-12 @ 12'	B-12	5/14/2002	0.427	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-12 @ 16'	B-12	5/14/2002	20.4	0.009	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-13 @ 4'	B-13	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-13 @ 8'	B-13	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-13 @ 12'	B-13	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-13 @ 16'	B-13	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
SB-13 @ 20'	B-13	5/14/2002	ND < 0.060	ND < 0.005	ND < 0.005	ND < 0.015	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 5.0			
1-North	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
1-South	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
2-South	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
2-North	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
3-South	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05					1.1		
4-South	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
1-Sidewall	UST PIT	3/19/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.01	ND < 0.005	ND < 0.05							ND < 10
BL 76 EX-1	EXCAVATION	3/24/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 1.0		6.6
BL 76 EX-2	EXCAVATION	3/24/2004	ND < 1.0	ND < 0.005	0.009	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	ND < 1.0		7.2
BL 76 EX-3	EXCAVATION	3/24/2004	580	5.9	36	4.9	2.4	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	35		6.3
BL 76 EX-4	EXCAVATION	3/24/2004	860	12	87	7.1	3.1	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	820		6.7
BL 76 EX-5	EXCAVATION	3/24/2004	260	2.5	25	1.6	1.4	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	14		8.2
BL 76 EX-6	EXCAVATION	3/24/2004	36	ND < 0.1	8.8	0.24	0.12	ND < 0.25	ND < 0.25	ND < 0.25	ND < 0.25	ND < 2.5	120		6.6
BL 76 EX-7	EXCAVATION	3/24/2004	ND < 1.0	ND < 0.005	0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.05	1.6		7.6

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether ETBE: Ethyl tertiary butyl ether TPHmo: Total petroleum hydrocarbons as motor oil.

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

ppm: parts per million = $\mu g/g = mg/kg = 1000 \mu g/kg$

ND: Not detected. Sample was detected below the method detection limit as shown.

ND*: Not detected. Method detection limit unknown.

Table 1 (cont.) Soil Analytical Results

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Xylenes (ppm)	Ethylbenzene (ppm)	MTBE (ppm)	DIPE (ppm)	TAME (ppm)	ETBE (ppm)	TBA (ppm)	TPHd (ppm)	TPHmo (ppm)
SB-14 @ 3'	B-14	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	0.013	ND < 0.005	0.027	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	16
SB-14 @ 8'	B-14	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.012	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	1.5	ND < 10
SB-14 @ 12'	B-14	5/26/2004	ND < 93	ND < 0.93	ND < 0.93	5.7	1.1	ND < 0.93	ND < 0.93	ND < 0.93	ND < 0.93	ND < 9.3	9.1	ND < 10
SB-14 @ 14'	B-14	5/26/2004	ND < 100	ND < 1.0	ND < 1.0	5.7	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 10	49	640
SB-14 @ 15'	B-14	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.040	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-15 @ 1'	B-15	5/26/2004	ND < 110	ND < 1.1	ND < 1.1	5.9	ND < 1.1	ND < 1.1	ND < 1.1	ND < 1.1	ND < 1.1	ND < 11	5.0	ND < 10
SB-15 @ 4'	B-15	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.048	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-15 @ 8'	B-15	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.056	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-15 @ 11'	B-15	5/26/2004	1,500	ND < 1.8	ND < 1.8	15.8	12	ND < 1.8	ND < 1.8	ND < 1.8	ND < 1.8	ND < 18	640	ND < 10
SB-15 @ 15'	B-15	5/26/2004	ND < 59	ND < 0.59	ND < 0.59	7.0	1.1	ND < 0.59	ND < 0.59	ND < 0.59	ND < 0.59	ND < 5.9	2.1	ND < 10
SB-16 @ 12.5'	B-16	5/26/2004	160	ND < 1.3	ND < 1.3	7.5	1.3	ND < 1.3	ND < 1.3	ND < 1.3	ND < 1.3	ND < 13	10	ND < 10
SB-16 @ 15'	B-16	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.12	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-17 @ 11'	B-17	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-20 @ 4'	B-20	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-20 @ 8'	B-20	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-20 @ 11'	B-20	5/26/2004	1.2	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.008	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	7.3	ND < 10
SB-20 @ 13'	B-20	5/26/2004	1.7	ND < 0.005	ND < 0.005	0.007	0.009	0.008	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	130	ND < 200
SB-20 @ 14'	B-20	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.081	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	1.7	ND < 10
SB-21 @ 4'	B-21	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-21 @ 8'	B-21	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	0.005	ND < 0.005	0.006	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10
SB-21 @ 11'	B-21	5/26/2004	1,100	ND < 0.005	0.009	13.8	5.6	0.013	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	670	ND < 10
SB-21 @ 14'	B-21	5/26/2004	2.6	ND < 0.005	ND < 0.005	0.081	0.095	0.016	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	2.1	ND < 10
SB-21 @ 16'	B-21	5/26/2004	ND < 1.0	ND < 0.005	ND < 0.005	ND < 0.010	ND < 0.005	0.047	ND < 0.005	ND < 0.005	ND < 0.005	ND < 0.050	ND < 1.0	ND < 10

Notes:
TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TPHmo: Total petroleum hydrocarbons as motor oil.

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

ppm: parts per million = $\mu g/g = mg/kg = 1000 \ \mu g/kg$

ND: Not detected. Sample was detected below the method detection limit as shown.

Table 2 **Groundwater Analytical Results from Boreholes**

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample ID	Sample Location	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	DBE (ppb)	DCE (ppb)	TPHd (ppb)	TPHmo (ppb)	Lead (ppb)
BL76B-3 @ 17.5' GW	B-3	9/7/2000	550	3.8	0.67	6.7	8.7	540	ND < 1.0	3.6	ND < 1.0	82	ND < 4	ND < 1.0	ND < 50	ND < 170	NT
BL76B-4 @ 21' GW	B-4	9/7/2000	140	0.83	0.52	ND < 1.0	ND < 0.5	16	ND < 1.0	ND < 1	ND < 1.0	17	ND < 2.0	ND < 1.0	3,700	2,700	NT
BL76B-5 @ 26' GW	B-5	9/7/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 1	ND < 1.0	ND < 10	ND < 2.0	ND < 1.0	ND < 50	ND < 170	NT
BL76B-6 @ 10.8' GW	B-6	9/7/2000	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 1.0	ND < 1	ND < 1.0	ND < 10	ND < 2.0	ND < 1.0	53	ND<170	NT
BL76B-7 @ 8.1' GW	B-7	9/7/2000	51	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	0.84	ND < 1.0	ND < 1	ND < 1.0	ND < 10	ND < 2.0	ND < 1.0	ND < 50	ND<170	NT
BL76B-8 @ 12' GW	B-8	9/7/2000	2,500	4.1	6.1	480	110	77	ND < 2.5	13	ND < 2.5	ND < 25	ND < 10	ND < 2.5	210	ND<170	NT
GW SB-9 @ 16'	B-9	5/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 0.5	ND < 0.5	ND < 50	ND < 50	NT
GW SB-10 @ 16'	B-10	5/14/2002	2,530	ND < 0.3	ND < 0.3	7.6	26.9	758	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 0.5	ND < 0.5	818	ND < 50	NT
GW SB-11 @ 16'	B-11	5/14/2002	10,600	258	8.3	119	240	4,130	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 0.5	ND < 0.5	868	ND < 50	NT
GW SB-12 @ 16'	B-12	5/14/2002	7,890	ND < 30	ND < 30	ND < 60	ND < 30	71.8	ND < 30	ND < 50	ND < 50	ND < 4,000	ND < 50	ND < 50	178,000	ND < 2,500	NT
GW SB-13 @ 20'	B-13	5/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 0.5	ND < 0.5	ND < 50	ND < 50	NT
DW-1	DW-1	5/14/2002	4,410	72.3	20.6	241	197	385	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	ND < 0.5	ND < 0.5	2,100	ND < 50	NT
Super Pit	UST PIT	3/19/2004	N/Q > 2,000	N/Q > 10	N/Q > 10	N/Q > 30	N/Q > 10	ND < 30									50
Main Pit	UST PIT	3/19/2004	8,000	420	67	272	330	220							3,900,000		3,800
SBGW-14	B-14	5/26/2004	1,700	5.7	2.1	83.6	65	40	ND < 0.5	1.6	ND < 0.5	ND < 5.0			950	ND < 500	
SBGW-15	B-15	5/26/2004	4,100	6.6	2.4	95.6	160	2,100	ND < 0.5	11	33	66			400	ND < 500	
SBGW-16	B-16	5/28/2004	2,300	1.7	0.6	1.0	8.8	470	ND < 0.5	7.5	10	57			890	ND < 500	
SBGW-18	B-18	5/28/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	3.3	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0			ND < 50	ND < 500	
SBGW-19	B-19	5/28/2004	ND < 50	ND < 0.5	0.8	ND < 1.0	ND < 0.5	41	ND < 0.5	ND < 0.5	1.3	ND < 5.0				ND < 500	
SBGW-20	B-20	5/26/2004	2,800	ND < 10	ND < 10	ND<20	10	24	ND < 10	ND < 10	ND < 10	ND < 100			14,000	ND < 500	
SBGW-21	B-21	5/26/2004	8,700	5.5	ND < 5.0	307	250	44	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50.0			2,100	ND < 500	

Notes:

TPHg: Total petroleum hydrocarbons as gasoline.

MTBE: Methyl tertiary butyl ether

DIPE: Diisopropyl ether

TAME: Tertiary amyl methyl ether

ETBE: Ethyl tertiary butyl ether

TPHmo: Total petroleum hydrocarbons as motor oil.

TBA: Tertiary butanol

TPHd: Total petroleum hydrocarbons as diesel.

DCE:1,2-dichloroethane N/Q: Not quantifiable due to high concentration of analyte. Sample was detected above the concentration indicated.

DBE: 1,2-dibromoethane

ppb: parts per billion = $\mu g/l = .001 \text{ mg/l} = 0.001 \text{ ppm}$.

ND: Not detected. Sample was detected below the method detection limit as shown.

Table 3 Water Levels

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample Location	Date	Depth to Bottom/ Feet BGS	Survey Height/ Feet Above MSL	Depth to Water/ Feet BGS	Adjusted Elevation/ Feet Above MSL	Thickness of Floating Product / Feet
	5/19/2002	15.26	125.50	8.35	117.15	0.00
	6/16/2002	15.26	125.50	8.62	116.88	0.00
	7/16/2002	15.30	125.50	8.98	116.52	0.00
	8/19/2002	15.25	125.50	9.43	116.07	0.00
	9/11/2002	15.31	125.50	9.57	115.93	0.00
	10/14/2002	15.26	125.50	9.59	115.91	0.00
	11/15/2002	15.29	125.50	8.95	116.55	0.00
MW-1	12/16/2002	15.24	125.50	7.82	117.68	0.00
	1/16/2003	15.29	125.50	8.11	117.39	0.00
	2/14/2003	15.30	125.50	8.15	117.35	0.00
	3/12/2003	15.28	125.50	8.13	117.37	0.00
	4/13/2003	15.21	125.50	8.12	117.38	0.00
	7/13/2003	19.12	125.50	8.99	116.51	0.00
	10/22/2003	15.21	125.50	9.11	116.39	0.00
	1/26/2004	15.21	125.50	8.14	117.36	0.00
	5/19/2002	18.24	124.91	8.72	116.19	0.00
	6/16/2002	18.24	124.91	9.09	115.82	0.00
	7/16/2002	18.21	124.91	9.48	115.43	0.00
	8/19/2002	18.18	124.91	9.61	115.30	0.00
	9/11/2002	18.24	124.91	9.63	115.28	0.00
	10/14/2002	18.21	124.91	9.66	115.25	0.00
	11/15/2002	18.22	124.91	8.72	116.19	0.00
	12/16/2002	18.19	124.91	6.93	117.98	0.00
	1/16/2003	18.23	124.91	7.34	117.57	0.00
	2/14/2003	18.25	124.91	8.07	116.84	0.00
MW-2	3/12/2003	18.22	124.91	8.20	116.71	0.00
IVI VV -2	4/13/2003	18.15	124.91	8.05	116.86	0.00
	7/13/2003	18.11	124.91	9.20	115.71	0.00
	10/22/2003	18.11	124.91	9.18	115.73	0.00
	1/26/2004	18.11	124.91	7.34	117.57	0.00
	7/31/2004	18.40	124.91	9.85	115.06	0.00
	10/31/2004	18.13	124.91	8.32	116.59	0.00
	1/29/2005	18.41	124.91	7.31	117.60	0.00
	5/14/2005	18.16	124.91	8.04	116.87	0.00
	7/18/2005	18.15	124.91	8.75	116.16	0.00
	10/25/2005	18.16	124.91	8.93	115.98	0.00
	1/23/2006	18.12	124.91	7.65	117.26	0.00

Table 3 (cont.) Water Levels

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

	1		Survey		Adjusted	
		Depth to	Height/	Depth to	Elevation/	Thickness
Sample	Data	Bottom/	_	-		of Floating
Location	Date	Feet BGS	Feet	Water/	Feet	Product /
		reet BGS	Above	Feet BGS	Above	Feet
	5/19/2002	18.98	MSL 125.26	8.77	MSL 116.49	0.00
	6/16/2002	18.98	125.26	9.09	116.17	0.00
	7/16/2002	18.98	125.26	10.55	114.71	0.00
	8/19/2002	18.97	125.26	13.65	111.61	0.00
	9/11/2002	18.99	125.26	14.65	110.61	0.00
	10/14/2002	18.97	125.26	15.47	109.79	0.00
	11/15/2002	19.01	125.26	10.62	114.64	0.00
	12/16/2002	19.25	125.26	9.69	115.57	0.00
	1/16/2003	19.00	125.26	8.44	116.82	0.00
	2/14/2003	19.00	125.26	8.56	116.70	0.00
MW-3	3/12/2003	19.05	125.26	8.10	117.16	0.00
W W - 3	4/13/2003	18.91	125.26	8.06	117.20	0.00
	7/13/2003	19.18	125.26	9.11	116.15	0.00
	10/22/2003	19.18	125.26	15.12	110.14	0.00
	1/26/2004	19.18	125.26	8.93	116.33	0.00
	7/31/2004	19.18	125.26	12.47	112.79	0.00
	10/31/2004	19.20	125.26	9.70	115.56	0.00
	1/29/2005	19.21	125.26	8.91	116.35	0.00
	5/14/2005	19.25	125.26	8.53	116.73	0.00
	7/18/2005	19.21	125.26	8.95	116.31	0.00
	10/25/2005	19.22	125.26	12.33	112.93	0.00
	1/23/2006	19.22	125.26	9.41	115.85	0.00
	5/19/2002	19.17	124.07	10.80	113.27	0.00
	6/16/2002	19.18	124.07	10.32	113.75	0.00
	7/16/2002	19.18	124.07	10.39	113.68	0.00
	8/19/2002	19.17	124.07	10.39	113.68	0.00
	9/11/2002	19.21	124.07	10.67	113.40	0.00
	10/14/2002	19.17	124.07	10.52	113.55	0.00
	11/15/2002	19.20	124.07	10.21	113.86	0.00
	12/16/2002	19.47	124.07	9.96	114.11	0.00
	1/16/2003	19.21	124.07	9.98	114.09	0.00
	2/14/2003	19.19	124.07	10.82	113.25	0.00
	3/12/2003	19.27	124.07	10.37	113.70	0.00
MW-4	4/13/2003	19.11	124.07	9.91	114.16	0.00
	7/13/2003	19.39	124.07	10.67	113.40	0.00
	10/22/2003	19.39	124.07	10.73	113.34	0.00
	1/26/2004	19.39	124.07	10.95	113.12	0.00
	4/28/2004	19.39	124.07	10.65	113.42	0.00
	7/31/2004	19.38	124.07	10.75	113.32	0.00
	10/31/2004	19.39	124.07	10.79	113.28	0.00
	1/29/2005	19.42	124.07	9.90	114.17	0.00
	5/14/2005	19.43	124.07	10.34	113.73	0.00
	7/18/2005	19.41	124.07	10.96	113.11	0.00
	10/25/2005	19.43	124.07	10.73	113.34	0.00
	1/23/2006	19.41	124.07	10.46	113.61	0.00

Notes: Bgs: Below Ground Surface MSL: Mean Sea Level

Table 4 Groundwater Analytical Results from Monitoring Wells Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	EDB (ppb)	EDC (ppb)
	Well Installation	2nd Quarter	5/19/2002	1,220	19.1	2.7	29.1	48	242	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	464	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	225	2.6	0.6	1.0	2.0	227	ND < 0.5	9.2	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 1,000	ND < 6.0	ND < 6.0	ND < 6.0	ND < 6.0	151	ND < 10	ND < 10	ND < 10	ND < 2,000	ND < 50	ND < 50	ND < 10	ND < 10
MW-1	3rd Quarterly	1st Quarter	1/16/2003	6,500	45	7.4	42.8	100	400	ND < 5.0	9.3	ND < 5.0	500	750	ND < 500	ND < 5.0	ND < 5.0
101 00 - 1	4th Quarterly	2nd Quarter	4/13/2003	3,000	14	ND < 5.0	6.3	28	210	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	300	ND < 500		
	5th Quarterly	3rd Quarter	7/13/2003	450	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	210	ND < 0.5	5.1	ND < 0.5	130	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	180	ND < 5.0	ND < 5.0	ND < 10.0	ND < 5.0	110	ND < 5.0	ND < 5.0	ND < 5.0	79	ND < 50	ND < 500	ND < 5.0	ND < 5.0
	7th Quarterly	1st Quarter	1/26/2004	1,400	25	ND < 5.0	7.1	39	86	ND < 5.0	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 500	ND < 5.0	ND < 5.0
	Well Installation	2nd Quarter	5/19/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	37.2	ND < 0.5	1.6	ND < 0.5	ND < 40	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	47.6	ND < 0.5	1.1	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	19.2	ND < 0.5	0.8	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	3.2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	3.8	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500		
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	3.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	2.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
MW-2	7th Quarterly	1st Quarter	1/26/2004	85	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	0.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	1.6	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	87	ND < 500		
	10th Quarterly	4th Quarter	10/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	0.8	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	96	ND < 500		
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	67	99		
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	55	61		
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	ND < 50		
	14th Quarterly	4th Quarter	10/25/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	ND < 50	55		
	15th Quarterly	1st Quarter	1/23/2006	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50.0	55	68		
	Well Installation	2nd Quarter	5/19/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	ND < 2.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	440	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	2.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	2nd Quarterly	4th Quarter	10/14/2002	ND < 50	ND < 0.3	ND < 0.3	ND < 0.6	ND < 0.3	2.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 100	ND < 50	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	7.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	0.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500		
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	0.6	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	2.3	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
MW-3	7th Quarterly	1st Quarter	1/26/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	0.9	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	1.2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500		
	10th Quarterly	4th Quarter	10/31/2004	ND < 50	ND < 0.5	ND < 0.5	ND < 1.5	ND < 0.5	1.1	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500		
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50		
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	14th Quarterly	4th Quarter	10/25/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	15th Quarterly	1st Quarter	1/23/2006	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	ND < 1.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		

Table 4 (cont.)

Groundwater Analytical Results from Monitoring Wells

Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

Sample Location	Sample Event	Annual Quarter	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethylbenzene (ppb)	MTBE (ppb)	DIPE (ppb)	TAME (ppb)	ETBE (ppb)	TBA (ppb)	TPHd (ppb)	TPHmo (ppb)	EDB (ppb)	EDC (ppb)
	Well Installation	2nd Quarter	5/19/2002	2,450	4.6	2.2	236	154	107	ND < 0.5	ND < 0.5	ND < 0.5	ND < 40	363	ND < 50	ND < 0.5	ND < 0.5
	1st Quarterly	3rd Quarter	7/16/2002	1,070	ND < 6.0	ND < 6.0	26.3	81.8	141	ND < 10	ND < 10	ND < 10	ND < 2,000	ND < 50	ND < 50	ND < 10	ND < 10
	2nd Quarterly	4th Quarter	10/14/2002	535	2.0	ND < 0.3	ND < 0.6	1.8	73.6	ND < 0.5	5.0	ND < 0.5	ND < 100	538	ND < 50	ND < 0.5	ND < 0.5
	3rd Quarterly	1st Quarter	1/16/2003	260	0.6	ND < 0.5	ND < 1.0	ND < 0.5	100	ND < 0.5	3.0	ND < 0.5	12	53	ND < 500	ND < 0.5	ND < 0.5
	4th Quarterly	2nd Quarter	4/13/2003	66	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	25	ND < 0.5	0.7	ND < 0.5	ND < 5.0	ND < 50	ND < 500		
	5th Quarterly	3rd Quarter	7/13/2003	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	17	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	6th Quarterly	4th Quarter	10/22/2003	430	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	68	ND < 0.5	ND < 0.5	ND < 0.5	ND < 5.0	76	ND < 500	ND < 0.5	ND < 0.5
MW-4	7th Quarterly	1st Quarter	1/26/2004	71	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	22	ND < 0.5	0.8	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
IVI VV -4	8th Quarterly	2nd Quarter	4/28/2004	51	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	15	ND < 0.5	0.5	ND < 0.5	ND < 5.0	ND < 50	ND < 500	ND < 0.5	ND < 0.5
	9th Quarterly	3rd Quarter	7/31/2004	140	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	28	ND < 0.5	1.4	ND < 0.5	ND < 5.0	110	ND < 500		
	10th Quarterly	4th Quarter	10/31/2004	100	ND < 0.5	ND < 0.5	1.3	0.5	76	ND < 0.5	3.5	ND < 0.5	ND < 5.0	82	ND < 500		
	11th Quarterly	1st Quarter	1/29/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	23.3	ND < 0.5	ND < 5.0	ND < 5.0	ND < 50	ND < 50	ND < 50		
	12th Quarterly	2nd Quarter	5/14/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	12.2	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	13th Quarterly	3rd Quarter	7/18/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	8.3	ND < 0.5	ND < 0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	14th Quarterly	4th Quarter	10/25/2005	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	47.0	ND < 0.5	2.0	ND < 0.5	ND < 50	115*	103*		
	15th Quarterly	1st Quarter	1/23/2006	ND < 50	ND < 0.5	ND < 0.5	ND < 1.0	ND < 0.5	15.9	ND < 0.5	0.5	ND < 0.5	ND < 50	ND < 50	ND < 50		
	3rd Quarterly	1st Quarter	1/16/2003	16,000	39	11	460	130	180					2,500			
	4th Quarterly	2nd Quarter	4/13/2003	4,200	25	5.1	239	31	130					2,200			
	5th Quarterly	3rd Quarter	7/13/2003	10,000	46	10	416	190	480					3,200			
	6th Quarterly	4th Quarter	10/22/2003	5,200	29	ND < 5.0	218	39	880					1,200			
DW-1	7th Quarterly	1st Quarter	1/26/2004	5,500	19	ND < 5.0	152	ND < 5.0	79					ND < 50			
DW-1	8th Quarterly	2nd Quarter	4/28/2004	7,300	21	ND < 5.0	128	55	100					3,000			
	9th Quarterly	3rd Quarter	7/31/2004	5,200	23	3.9	168	55	580					3,300			
	10th Quarterly	4th Quarter	10/31/2004	4,400	25	5.0	175	50	160	ND < 5.0	ND < 5.0	5.8	ND < 50	2,300	ND < 500		
	11th Quarterly	1st Quarter	1/29/2005	1,120	9.3	2,2	53.5	32.0	47.5	ND < 0.5	ND < 5.0	ND<5.0	ND<50	1,780	ND < 50		
	13th Quarterly	3rd Quarter	9/5/2005	1,640	9.8	2.0	46.2	15.9	380	ND < 1.2	4.6	16.3	ND < 125	3,580	1,040		

Notes:

NOIGES:
THG: Total petroleum hydrocarbons as gasoline
MTBE: Methyl tertiary butyl ether
DIPE: Diisopropyl ether
TAME: Tertiary amyl methyl ether
TPHd: Total petroleum hydrocarbons as diesel

EDB: 1,2-Dibromoethane EDC: 1,2-Dichloroethane

TBA: Tertiary butanol ETBE: Ethyl tertiary butyl ether

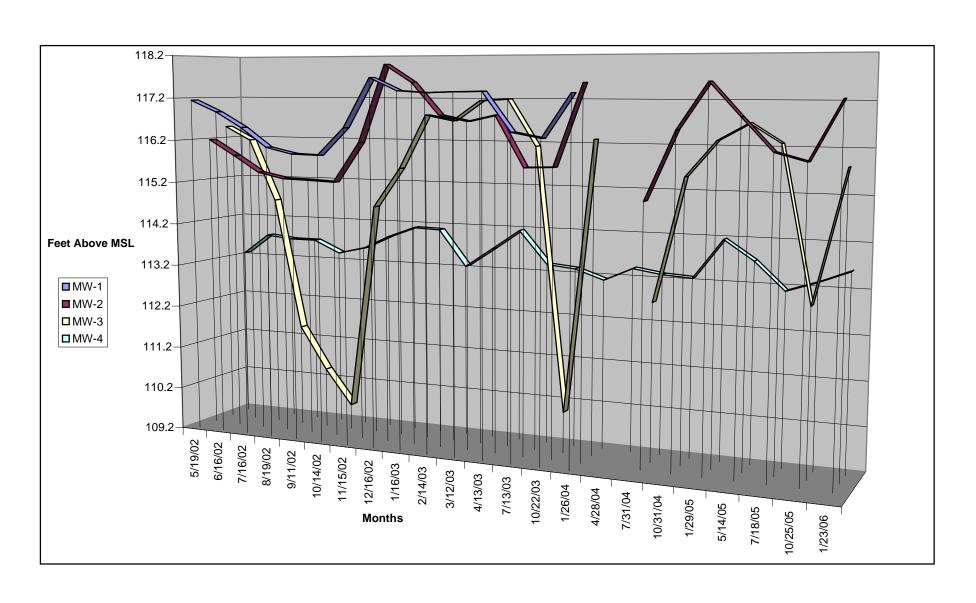
PHENO: Total petroleum hydrocarbons as motor oil ppb: parts per billion = µg/1 = .001 mg/1 = 0.001 ppm

ND: Not detected. Sample was detected at or below the method detection limit as shown.

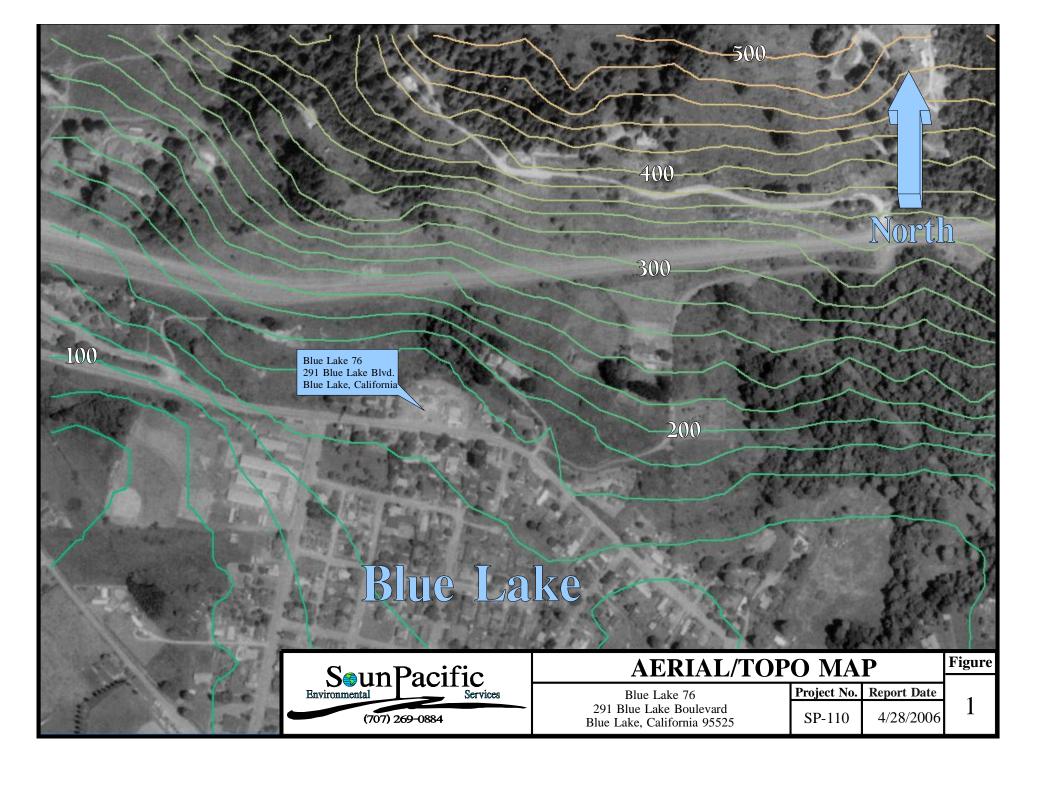
NT: Not tested.

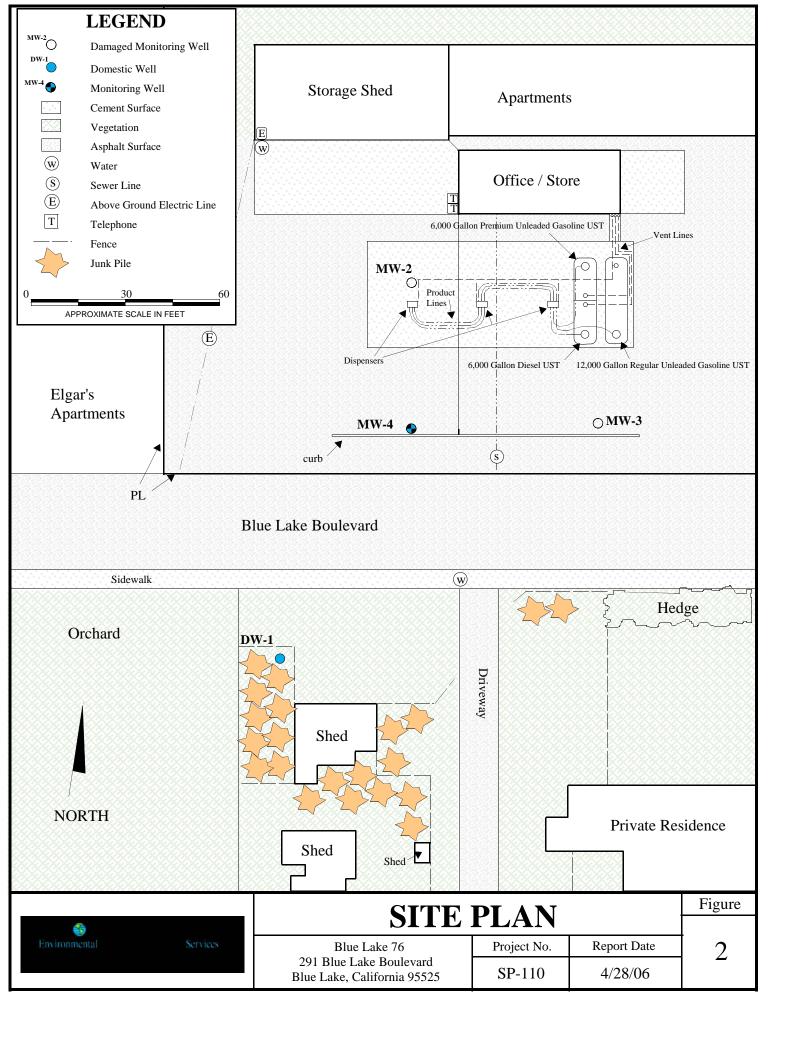
Chart 1 Hydrograph

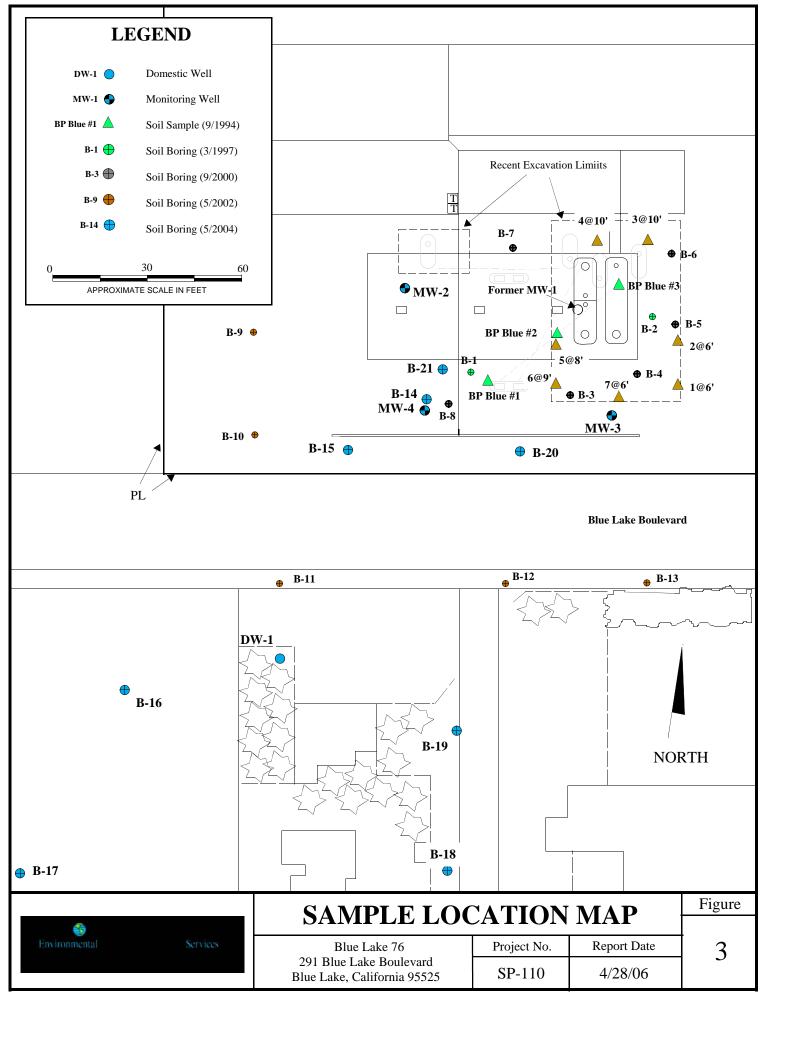
Blue Lake 76 291 Blue Lake Boulevard Blue Lake, California 95525

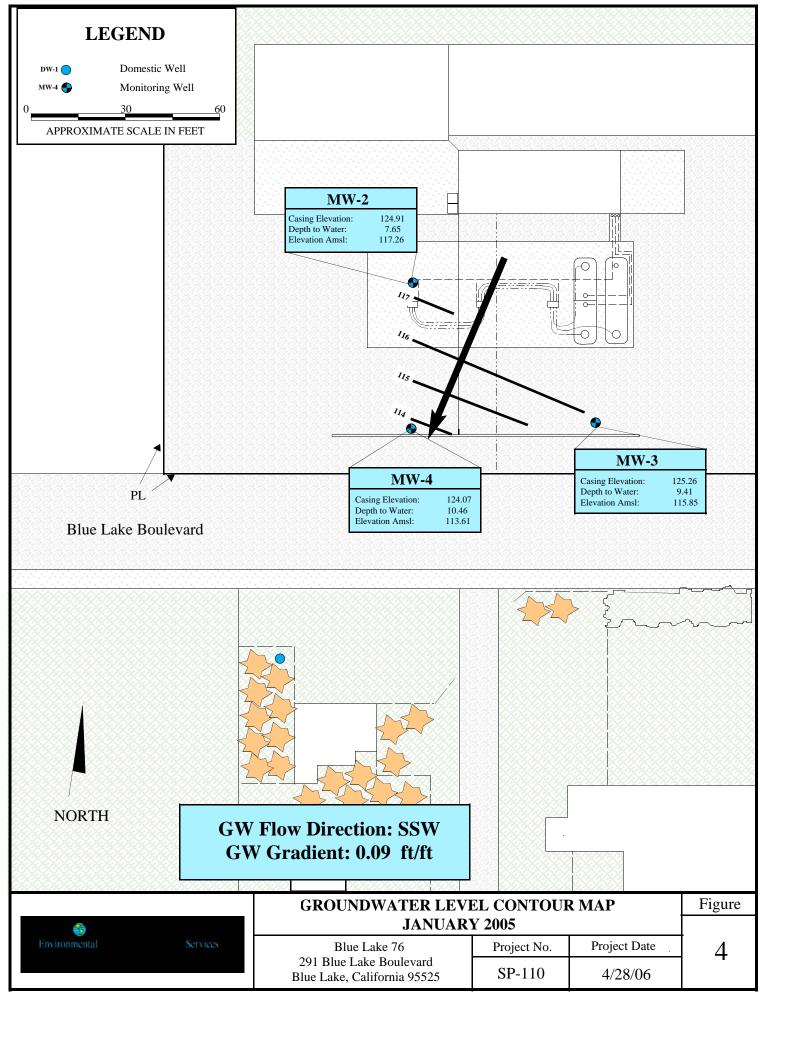


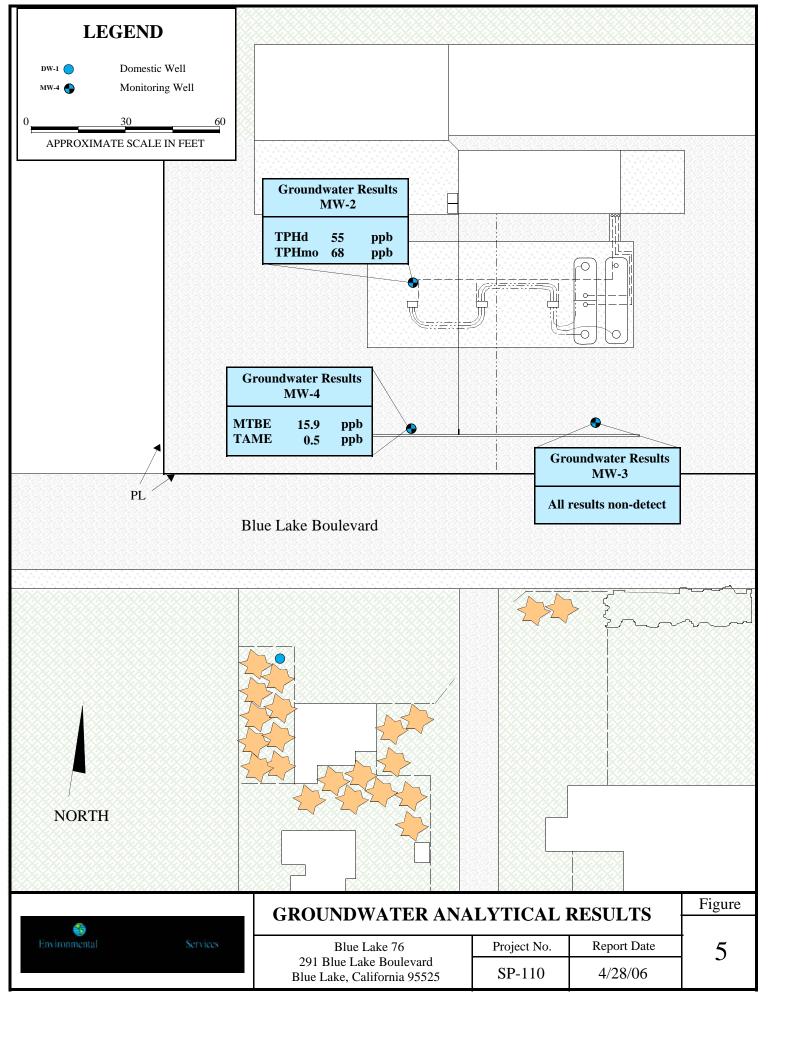
Figures

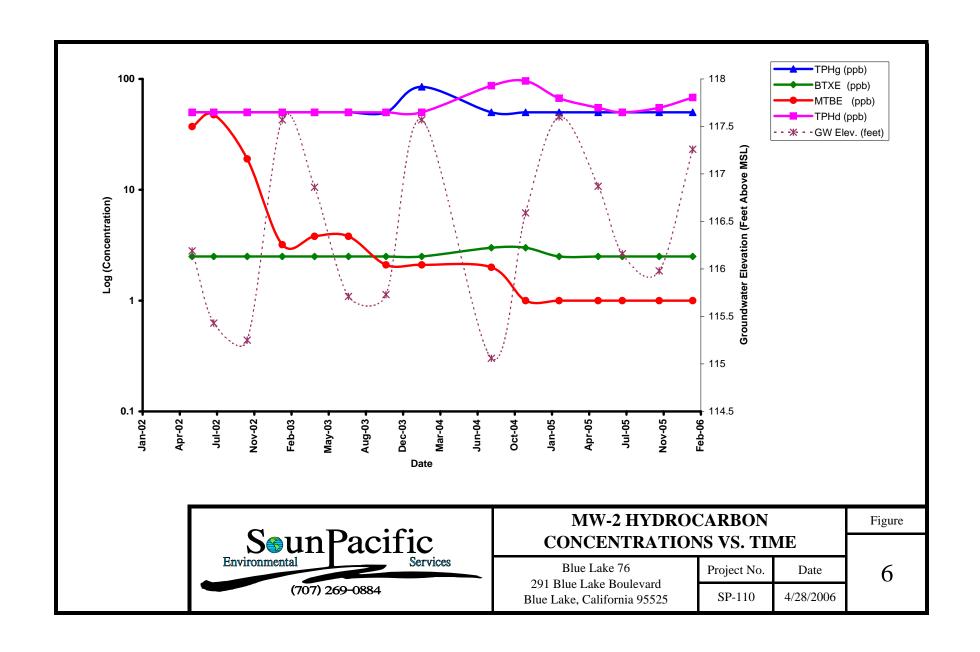


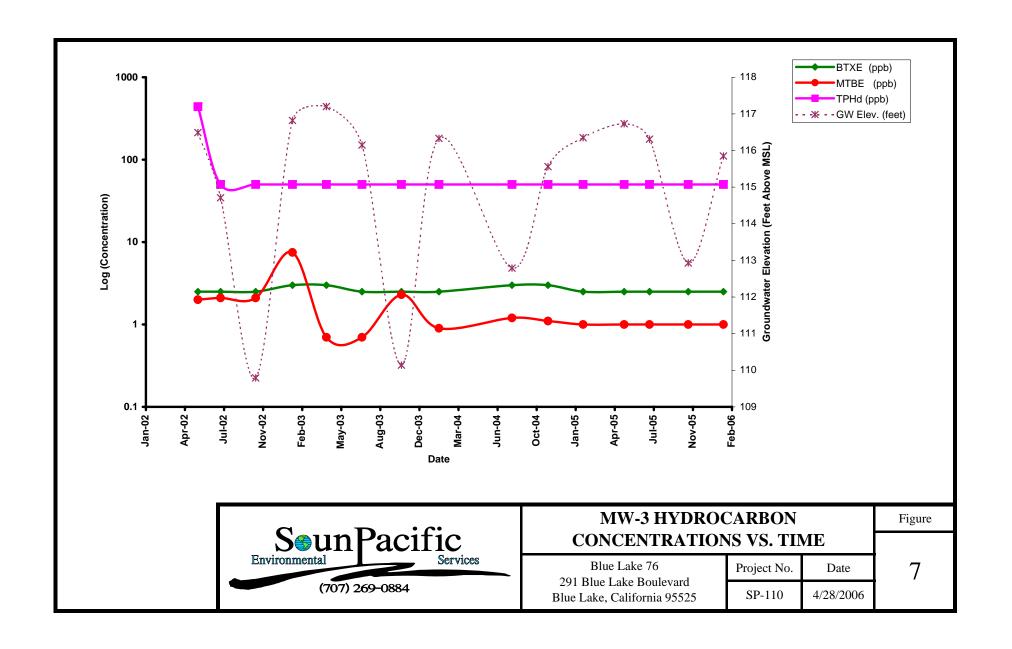


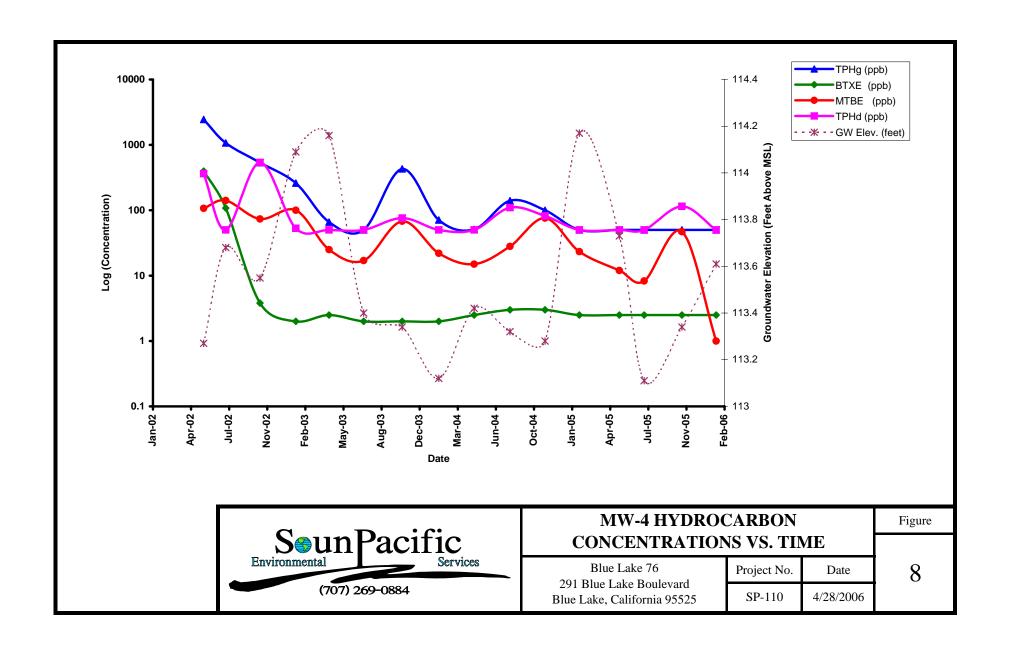


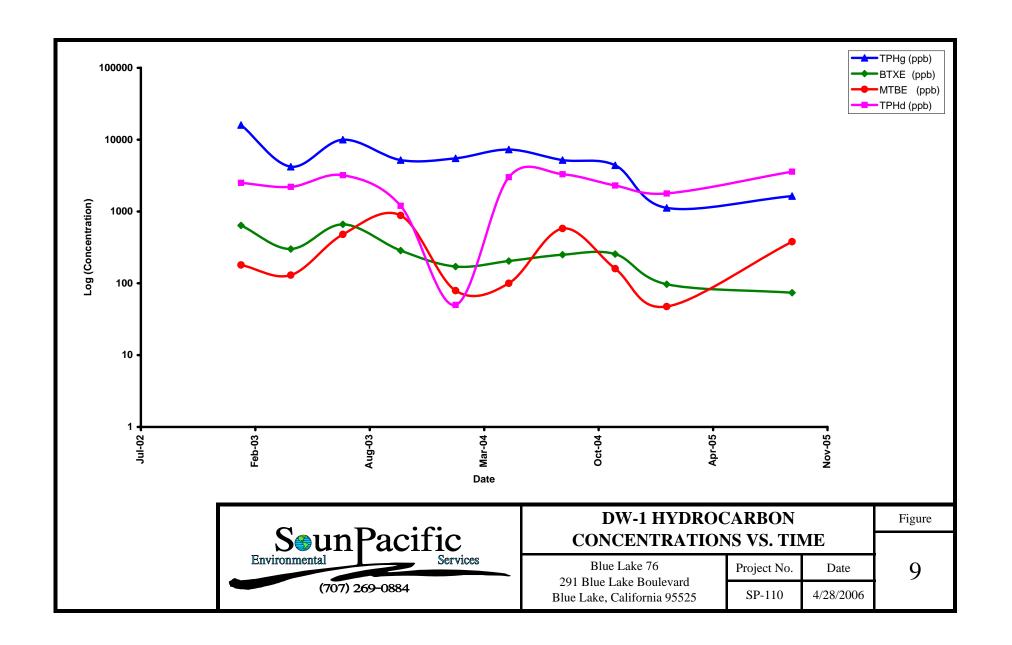












Appendices

Appendix A



voice **530.243.7234** fax **530.243.7494**

2218 Railroad Avenue Redding, California 96001

February 06, 2006

Lab ID: 6010709

Andy Malone SOUNPACIFIC 4612 GREENWOOD HEIGHTS DR KNEELAND, CA 95549 RE: BLUE LAKE 76 SP-110

Dear Andy Malone,

Enclosed are the analysis results for Work Order number 6010709. All analysis were performed under strict adherence to our established Quality Assurance Plan. Any abnormalities are listed in the qualifier section of this report.

If you have any questions regarding these results, please feel free to contact us at any time. We appreciate the opportunity to service your environmental testing needs.

Sincerely,

Ricky D. Jensen

Laboratory Director

California ELAP Certification Number 1677



voice 530.243.7234

fax 530.243.7494

2218 Railroad Avenue Redding, California 96001

Report To:

SOUNPACIFIC

4612 GREENWOOD HEIGHTS DR

KNEELAND, CA 95549

Attention:

Andy Malone

Project:

BLUE LAKE 76 SP-110

Description:

Matrix:

MW-2 Water

Lab ID: 6010709-01

Lab No:

6010709

Reported:

02/06/06

Phone:

707-269-0884

P.O. #

Sampled: 01/23/06 00:00

Received: 01/25/06 11:22

Volatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	Results	Qualifier	MDL	<u>RL</u>	Method	Analyzed	Prepared	<u>Batch</u>
Gasoline	ug/i	ND			50.0	EPA 8015/8260		01/26/06	B6A0605
Benzene	'n	ND			0.5	n ,	"	"	11
Toluene	"	ND			0.5	"	11	II .	If
Ethylbenzene	**	ND			0.5	п	n	u	п
Xylenes (total)		ND			1.0	IT	11	н	II .
Methyl tert-butyl ether	ti	ND			1.0	O O	. "	II .	11
Di-isopropyl ether	11	ND			0.5	п	U	11	п
Tert-amyl methyl ether	u	ND			0.5	II .	н	и	II.
Ethyl tert-butyl ether	II	ND			0.5	11	u ·	11	н
Tert-butyl alcohol	n n	ND			50.0	IT	n	н	
Surrogate: 4-Bromofluorobenzene	_	102 %		43	-1 <i>55</i>	"	"	"	"

TPH Diesel & Motor Oil

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	Qualifier	MDL	<u>RL</u>	<u>Method</u>	Analyzed	Prepared	Batch
Diesel	ug/i	55			50	EPA 8015 MOD	02/02/06	01/27/06	B6A0613
Motor Oil	н	68			50	II .	່ ຫ້	, n,	14
Surrogate: Octacosane		97.7 %		50-1	50	"	"	"	"

Basic Laboratory, Inc. California D.O.H.S. Cert #1677



voice **530.243.7234** fax **530.243.7494**

2218 Railroad Avenue Redding, California 96001

Report To:

SOUNPACIFIC

4612 GREENWOOD HEIGHTS DR

KNEELAND, CA 95549

Attention: Andy Malone

Project:

Description: MW-3

BLUE LAKE 76 SP-110

Matrix: Water

Lab ID: 6010709-02

Lab No:

6010709 02/06/06

Reported: Phone:

707-269-0884

P.O. #

Sampled: 01/23/06 00:00

Received: 01/25/06 11:22

Volatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	Qualifier	MDL	<u>RL</u>	Method	Analyzed	Prepared	Batch
Gasoline	ug/i	ND			50.0	EPA 8015/8260	01/26/06	01/26/06	B6A0605
Benzene	Ü	ND			0.5	"	"	"	11
Toluene	"	ND			0.5	II .		п	11
Ethylbenzene	II.	ND			0.5	н	u u		11
Xylenes (total)	n	ND			1.0	н	Ħ	11	11
Methyl tert-butyl ether	n n	ND			1.0	O O	If	ır	11
Di-isopropyl ether	u	ND			0.5	n	TI .	*1	If
Tert-amyl methyl ether	н	ND			0.5	II .	н	п	11
Ethyl tert-butyl ether	It .	ND			0.5	n	n .	U	11
Tert-butyl alcohol	ш	ND			50.0	II	11	п	u u
Surrogate: 4-Bromofluorobenzene		96.6 %		43	-155	"	"	"	"

TPH Diesel & Motor Oil

<u>Analyte</u>	<u>Units</u>	Results	Qualifier	MDL	<u>RL</u>	<u>Method</u>	<u>Analyzed</u>	Prepared	Batch
Diesel	ug/l	ND			50	EPA 8015 MOD	02/02/06	01/27/06	B6A0613
Motor Oil	н	ND			50	IJ	n n	n	11
Surrogate: Octacosane		93.2 %		50-	150	"	"	"	"

Basic Laboratory, Inc. California D.O.H.S. Cert #1677



voice **530.243.7234** fax 530.243.7494

2218 Railroad Avenue Redding, California 96001

Report To:

SOUNPACIFIC

4612 GREENWOOD HEIGHTS DR

KNEELAND, CA 95549

Attention: Andy Malone

Project: BLUE LAKE 76 SP-110

Description: MW-4

Matrix: Water **Lab ID:** 6010709-03

P.O. #

Lab No:

Phone:

Reported:

6010709

02/06/06

707-269-0884

Sampled: 01/23/06 00:00 **Received:** 01/25/06 11:22

Volatile Organic Compounds

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	Qualifier	MDL	<u>RL</u>	Method	Analyzed	Prepared	<u>Batch</u>
Gasoline	ug/l	ND			50.0	EPA 8015/8260		01/26/06	B6A0605
Benzene	ii .	ND			0.5	"	"	11	"
Toluene	n	ND			0.5	II .	"	u	11
Ethylbenzene	11	ND			0.5	0	17	п	
Xylenes (total)		ND			1.0	11	11	n	tr.
Methyl tert-butyl ether	"	15.9			1.0		н	Ħ	11
Di-isopropyl ether	11	ND			0.5	II .	11	It.	tr .
Tert-amyl methyl ether	ti	0.5			0.5	11	n	II .	11
Ethyl tert-butyl ether	17	ND			0.5	11	п	11	н
Tert-butyl alcohol	II .	ND			50.0	u u	n	II.	II .
Surrogate: 4-Bromofluorobenzene		99.2 %		43-		"	"	"	"

TPH Diesel & Motor Oil

<u>Analyte</u>	<u>Units</u>	<u>Results</u>	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
Diesel	ug/i	ND			50	EPA 8015 MOD	02/03/06	01/27/06	B6A0613
Motor Oil	11	ND			50	II .	11	"	"
Surrogate: Octacosane		98.1 %		50-1	50	"	n	"	"

Notes and Definitions

Analyte DETECTED DET

ND Analyte NOT DETECTED at or above the detection limit

NR

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference Less than reporting limit

Less than or equal to reporting limit ≤

Greater than reporting limit

Greater than or equal to reporting limit

MDL Method Detection Limit

RL/ML Minimum Level of Quantitation

MCL/AL Maxium Contaminant Level/Action Level

mg/kg Results reported as wet weight TTLC Total Threshold Limit Concentration

STLC Soluble Threshold Limit Concentration

Toxicity Characteristic Leachate Procedure

Basic Laboratory, Inc. California D.O.H.S. Cert #1677

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Sounfacific ADDRESS: P.O. Box 13		REQ	UEST	ED C	OMP	P. DA	TE:	8-	STA	TE F	ORMS	?	# OF	SAMPLES:	
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INSTRUCTIONS, TERMS AND CONDITIONS ON BACK.

Appendix B



Standard Operating Procedures

Groundwater Level Measurements and Free Phase Hydrocarbon Measurements

All SounPacific staff and contractors shall adopt the following procedures any time that groundwater elevations are determined for the purposes of establishing groundwater gradient and direction, and prior to any sampling event.

Wells are to be tested for free phase hydrocarbons (free product) before the first development or sampling of any new well, and in any well that has historically contained free product.

Equipment Checklist

Ш	Combination water level / free phase hydrocarbon indicator probe (probe)
	Gauging Data / Purge Calculations Sheet
	Pencil or Pen/sharpie
	Disposable Gloves
	Distilled Water and or know water source on site that is clean
	Alconox (powder) or Liquinox (liquid) non-phosphate cleaners—do not use soap!
	Buckets or Tubs for decontamination station
	Tools necessary to access wells
	Site Safety Plan
	This Standard Operating Procedure
	Notify Job site business that you will be arriving to conduct work.

Procedure

- 1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
- 2. Access and open all monitoring wells to be measured. Allow wells to equilibrate for approximately 15 minutes before taking any measurements.

Standard Operating Procedure for Groundwater Level and Free Product Measurements Page 2 of 2

- 3. Decontaminate probe with Alconox or Liquinox solution, and rinse with distilled water.
- 4. Determine the diameter of the well to be measured and indicate this on the Gauging Data / Purge Calculations Sheet.
- 5. <u>Words of caution:</u> Please be careful with water level and product meters probes are not attached with high strength material so please make sure to avoid catching the end on anything in the well and make sure not to wind reel to the point that it could pull on the probe. *If product is suspect in a well, go to step 6, if no product is suspected go to step 7 below.*
- 6. When product is present or suspected: use the product level meter. Clip the static charge clamp to the side of the well casing. Then lower probe into the well through the product/water interface about one foot if possible. Then slowly raise the probe back up through the product/water interface layer and record the level as the tone changes from solid to broken-record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTP). Continue to raise the probe up through the product until the tone stops completely-record this level on the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW). Then go to step 8.
- 7. When <u>no</u> product is present or suspected: If no free product is present, record the depth of the water (to the nearest 0.01 foot) relative to the painted black mark on the top of the well casing. Leave the probe in the well just a hair above the water level to ensure the well as equilibrated. As the well rises, the tone will sound. Make sure no increase in water levels have occurred in over a ten-minute period. Water levels can lower as well as rise. Make sure you note when the level you keep lowering the probe to has remained stable for at least ten minutes. Once this has been accomplished, please record this level in the Gauging Data / Purge Calculations Sheet to the nearest 0.01 foot (DTW).
- 8. Turn off the probe, and use the probe to determine the depth to the bottom of the well relative to the top of the well casing. This is the depth to bottom measurement (DTB).
- 9. Decontaminate probe and tape by washing in an Alconox/Liquinox solution (*read directions on solution for ratio of water to cleanser*) and use the toothbrush provided to remove any foreign substance from the probe and tape. Then triple rinse probe and tape with clean water and then proceed to take measurements in the next well.
- 10. If sampling is to occur, proceed to implement SounPacific's Standard Operating Procedure for Monitoring Well Purging and Sampling. If no sampling is to be performed, close and secure all wells and caps.



Standard Operating Procedures

Monitoring Well Purging and Groundwater Sampling

All SounPacific employees and contractors shall adopt the following procedures any time that groundwater samples are to be taken from an existing groundwater monitoring well.

Prior to the implementation of these procedures, the groundwater level **MUST** be measured and the presence of free phase hydrocarbons determined in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

Equipment Checklist

Gauging Data / Purge Calculations Sheet used for water level determination
Chain of Custody Form
pH/ Conductivity / Temperature meter
Pencil or Pen
Indelible Marker
Calculator
Disposable Gloves
Distilled Water
Alconox/liquinox liquid or powdered non-phosphate cleaner
Buckets or Tubs for decontamination station
Bottom-filling bailer or pumping device for purging
Disposable bottom-filling bailer and emptying device for sampling
String, twine or fishing line for bailers
Sample containers appropriate for intended analytical method (check with lab)
Sample labels
Site Safety Plan
Tools necessary to access wells
Drum space on site adequate for sampling event

SounPacific Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, Page 2 of 3

Procedure

- 1. Review Site Safety Plan and utilize personal protection appropriate for the contaminants that may be encountered.
- 2. Measure groundwater levels and check for the presence of free product in accordance with the Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements.

Purging

- 3. Calculate and record the volume of standing water in each well using the information provided on the Gauging Data / Purge Calculations sheet.

 (DTB-DTW) x Conversion Factor = Casing Volume.
- 4. The purge volume shall be at least three times and no more than seven times the volume of standing water (the casing volume).
- 5. Purge the well by bailing or pumping water from the well into a calibrated receptacle, such as a five gallon bucket or tub with markings to indicate one gallon increments. Collect purgeate in a 55 gallon labeled drum and store on site. Drum labels should include the date, contents, site number, and SounPacific's name and telephone number.
- 6. Take measurements of pH, conductivity, temperature, and visual observations to verify the stabilization of these parameters. At least five measurements of these parameters should be made throughout the purging process. The parameters shall be considered stabilized if successive measurements vary by less than 0.25 pH units, 10% of conductivity in μS, and 1°C (or 1.8°F). Continue purging until at least three times the casing volume has been removed, and the measured parameters have stabilized as indicated above. Do not exceed seven casing volumes.
- 7. Take a final depth to groundwater measurement and calculate the casing volume of the recharged well. Ideally, the casing volume should have recharged to at least 80% of the original measured casing volume before sampling commences. If due to slow recharge rates it is not feasible to wait for the well to fully recharge, then note this on the Gauging Data / Purge Calculation Sheet and proceed to sample following the procedure below.

SounPacific Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, Page 3 of 3

Sampling

- 8. After completing groundwater measurement, and checking for free product if necessary, in accordance with SounPacific's Standard Operating Procedures for Groundwater Level Measurements and Free Phase Hydrocarbon Measurements, and after purging monitoring wells as described above, groundwater samples may be collected.
- 9. Slowly lower a clean, previously unused disposable bailer into the well water approximately half of the bailer length, and allow the bailer to slowly fill.
- 10. Withdraw the full bailer from the monitoring well and utilize the included (clean and unused) bottom-emptying device to fill the necessary sample containers, and seal the container with the included PTFE (Teflon) lined cap.
- 11. When filling VOAs, fill the VOA completely full, with the meniscus rising above the rim of the bottle. Carefully cap the VOA and invert it and gently tap it to determine whether air bubbles are trapped inside. If the VOA contains air bubbles, refill the VOA and repeat this step.
- 12. All samples shall be labeled with the Sample ID, the Sample Date, and the Sample Location or Project Number. Use an indelible marker for writing on sample labels.
- 13. Record all pertinent sample data on the Chain of Custody.
- 14. Place samples in an ice chest cooled to 4°C with ice or "blue ice". Bottles should be wrapped in bubble wrap, and VOA's should be inserted in a foam VOA holder to protect against breakage. Samples are to be kept at 4°C until delivered to the laboratory. Any transference of sample custody shall be indicated on the Chain of Custody with the appropriate signatures as necessary.
- 15. Utilize clean, previously unused gloves, bailer and line, and bottom-emptying device for each well sampled.
- 16. When finished with all sampling, close and secure all monitoring wells.
- 17. Leave the site cleaner than when you arrived and drive safely.

Appendix C

GAUGING DATA/PURGE CALCULATIONS

Soun Pacific Environmental Pacific Service Job Site: Blue Lake 7 (707) 269-0884 WELL SPL Bailer (in.) (fl.) Loads NO. (A.) Silty near bottom MW-2 Juddy Mater 1046 8.95 Bilty near bottom, Then clear up

Explanation:

DLA. - Well Diameter

DTB = Depth to Bottom

DTW = Depth to Water

ST = Saturated Thickness (DTB-DTW)

CV = Casing Volume (ST x cf)

PV = Purge Volume (standard 3 x CV, well development 10 x CV)

SPL = Thickness of Separate Phase Liquid

Conversion Factors (cf):

2 in. dia. well of = 0.16 gal /ft.

4 in. dis. well of = 0.65 gal./ft.

6 in. dia. well of = 1.44 gal./ft.

Sampler:

Tienyu Tai



Well Gauging/Sampling Report

						She	et / of 2
Date	1-23	-06	Project Name	Bue Lak	076	Project No: 5P (10	Wall Number: MW->
						TPHMO	
Sample Containers	_) Brown GI	
Purge Technique			Bailer	,	129	Pump	9
Sounds Used			Water Meter		DXI	Interface Meter	
				Water & Free I	Product Levels		
1	Time	Depth to	Water	Depth to	Product		Notes:
12:	15	2.65	_			Nos	heen
12:		7.65		 		- ' '	
1=1	nd			-			
				Field Meas	sarements		
Time	Total Vel. Removed/(gal)	pH	Temp/(F)	CondJ(ms/om)	DO/(mg/L)	DO/(%)	
12:510	D	6.24	59.95	0.215	1.06	10.6	
12:56	1.7	6.24	6000	0.214	0.59	5.9	<u> </u>
1:10	5.1	6.21	59.93	0.210	0.69	3.7	-
1.10	2.1	6.21	31.13	0.301	U.S/	>./	
							-
						8 2	
			18				*
				Field Scientist:	Tien	-yu Tai	· .



Well Gauging/Sampling Report

		and the second second second second	-	-			w . 6 w >
Date	1/23	-06	Project Name	Blue Lal	ne 76	Project No: SP-110	Well Number: MW-3
Analyse Tested	TPH	9. BT	KE,	5 Dxys.	TPH	d, TAHM	0
Sample Containers	3 (1	pul) 1	til vo	As.	z (1L)	Brown Glo	ass Bottles
Purg. Technique			Bailer		Ľ 3 8	Pump	
Sounde Used			Water Moter			Interface Meter	
1				Water & Free	Product Levels		
1	l'ime	Depth to 1	Wester	Depth to	Product		Notes:
12:0	5 P	9.71				No Sh	een
12:2		9.66				. (
12:3	_	9.41				Sheen	
1:4:		9.41					
End		7.9					
				Field Mean	urements		
Time	Total Vol. Removed/(gal)	pH	Tomp/(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	
1:53P	0	6.23	61.02	0.220	1.32	13.4	
1:58	1.6	6.23	60.24	0.227	0.49	5.0	
2:03	3.2	62		0.235	0.90	9.1	·
2:07	4.8	6.15	61.79	0.217	0.55	-5.7	
				Pield Scientist:	Tier	1 -yu Ta	à



Well Gauging/Sampling Report

Sounder Used:						31.30	
			Water Meter Mater				
-				Water & Free	Product Levels		**************************************
Tin	me	Depth t	o Water	Depth to	Product		Notes:
12:0	9	10.63 ft				No She	210
12:4	,	10.4				(
2:4		104	1			(,	
2:5	-1	10.46				×1	
Eno	4						
				<u> </u>			
	Total Vol.		7:	Field Meas			
	Removed/(gul)	pH	Temp/(F)	Cond./(ms/cm)	DO/(mg/L)	DO/(%)	-
220	0	6.48		0.568	05	5.2	
29	1.4	6.3-6	62.54		052	5.4	
34	2.8	638		0.533	0.42	4.3	1
38	4,2	6°47	63.27	0.573	0.39	4.0	
\rightarrow			-				

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